

New Species of Mollusks from the Coast of Brazil

BY

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(5 Text figures)

THIS IS THE FIRST in what is hoped to be a series of papers describing new species of mollusks that are coming to light in recent years, due to good opportunities for collecting.

CL. PELECYPODA

HETERODONTA

SEMELIDAE

Semele SCHUMACHER, 1817

Semele aurora TURSCH & PIERRET, spec. nov.

(Figures 1, 2 and 3)

Shell white, marked with numerous radial color stripes that are pink to bright orange, the area near the umbones flecked or blotched with red. Texture porcelaneous but somewhat translucent, the external rays showing through to the highly enameled interior surface. Outline subovate, with rounded anterior end, posterior end shorter with a definite flexure. Right valve slightly more convex than

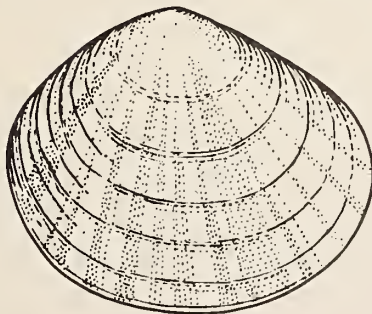


Figure 1: *Semele aurora*, holotype, Stanford Univ. Paleo. Type Coll. no. 9736. Exterior, right valve. $\times 1$.
Recent, Rio de Janeiro.

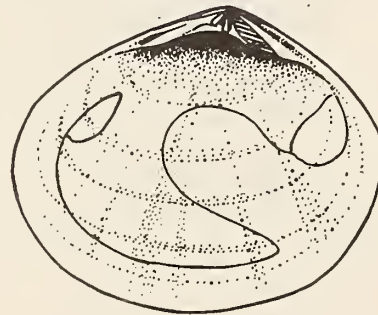


Figure 2: *Semele aurora*, holotype, Stanford Univ. Paleo. Type Coll. no. 9736. Interior, right valve. $\times 1$.
Recent, Rio de Janeiro.

left. Sculpture, in addition to growth lines, of coarsely corrugated concentric ribs, finer near beaks, more widely spaced near margins, stronger on the posterior end. Hinge with two cardinal and two lateral teeth in either valve, the anterior cardinals higher, slightly bifid. External ligament supplemented by a resilium in an internal depression or chondrophore behind the two cardinal teeth and nearly parallel to the posterior part of the hinge line. Pallial sinus moderately large.

Dimensions:

(in millimeters)

	Length	Height	Convexity (both valves)
Holotype	48.9	41.8	17.1
Paratype I	38.6	30.6	13.5
Paratype II	38.9	31.4	13.7

Type locality: Off Rio de Janeiro, in 30 fathoms, sand.
Repositories: Holotype, Stanford Univ. Paleo. Type Coll.

no. 9736. Paratype I: Museu Nacional, Rio de Janeiro, no. 3116; Paratype II: American Museum of Natural History, New York.

Discussion: This species seems related to *Semele purpurascens* (GMELIN, 1791) but is readily separated by its coarser concentric ribs and its distinctive color pattern. These differences also apply to *S. proficua* (PULTENEY,



Figure 3: *Semele aurora*, holotype, Stanford Univ. Paleo. Type Coll. no. 9736. Diagram of hinge of right valve. $\times 1$. Recent, Rio de Janeiro.

1799). From *S. casali* DOELLO-JURADO, 1949, of the Argentine coast, it is distinguished by its larger size, smaller pallial sinus, and greater proportionate height.

CL. GASTROPODA

CTENOBRANCHIATA

PTENOGLOSSA

EPITONIIDAE

Epitonium RÖDING, 1798

Epitonium (Epitonium) arnaldoi TURSCH & PIERRET
spec. nov.

(Figure 4)

Shell small, thin, white, rather fragile, imperforate, with numerous costae. Surface between costae shiny, showing no microscopic sculpture. Whorls about 10, convex, attached to one another by the costae. Aperture subcircular, holostomatous. Nuclear whorls $2\frac{1}{2}$, glassy, smooth. Whorls of teleoconch flat-sided, enlarging at an angle of approximately 35° . Costae blade-like, somewhat solid, produced at a sharp angle on the shoulder of the body whorl. Holotype with 10 costae on body whorl. Operculum unknown.

Dimensions:

(in millimeters)

	Length	Width	Number of whorls
Holotype:	11.0	4.5	10.0
Paratype:	5.2	2.9	6+
			(probably 2 missing)

Type locality: Trawled off Punta de Juatinga, Lat. $23^\circ 22'$ S., Long. $48^\circ 28'$ W., in 50 meters depth.

Repositories: Holotype, Stanford Univ. Paleo. Type Coll. no. 9737; paratype, Museu Nacional, Rio de Janeiro, no. 3118.

Discussion: *Epitonium arnaldoi* seems to be closely related to *E. angulatum* (SAY, 1830). It can be distinguished by the flat-sided whorls of the spire, contrasting to the convexity of *E. angulatum* and also by having more whorls for an equal size; for example, a shell of 16 mm length of *E. angulatum* has 8 whorls, whereas at 11 mm *E. arnaldoi* has 10. From *E. venosum* (SOWERBY, 1844) and



Figure 4: *Epitonium arnaldoi*, holotype, Stanford Univ. Paleo. Type Coll. no. 9737. $\times 4.4$. Recent, Rio de Janeiro.

E. foliaceicostum (D'ORBIGNY, 1842) this new species differs by the number of whorls and the number of costae on the body whorl.

This species is named after Dr. Arnaldo Campos dos Santos Coelho, Curator of Mollusca at the Museu Nacional of Rio de Janeiro.

Epitonium (Epitonium) mauryi TURSCH & PIERRET
spec. nov.

(Figure 5)

Shell moderately large (some adults as large as 25 mm in length), thin, white, imperforate, with numerous costae. Surface between costae shiny, showing no microscopic sculpture. Whorls up to 11 in number, convex, appressed or slightly separated and attached by the costae only. Aperture subcircular, holostomatous. Nuclear whorls very small, smooth. Spire elongated, spire angle approximately 26° . Costae blade-like, rather high, angled at the whorl shoulder, where they reach the maximum height. Body whorl with 13 to 15 costae. Operculum unknown.

Dimensions:

(in millimeters)

	Length	Width	Number of whorls
Holotype:	18.4	6.5	10.5
Paratype I:	14.4	5.0	10.0
Paratype II:	18.6	6.5	10.0
Paratype III:	13.5	5.5	8.0

(early whorls missing in all specimens listed above)

Type locality: Trawled off Punta de Juatinga, Lat. 23°22' S., 48°28' W., in 50 meters.

Repositories: Holotype, Stanford Univ. Paleo. Type Coll. no. 9738; Paratype I, Museu Nacional, Rio de Janeiro, no. Harvard; Paratype II, American Museum of Natural History, New York; Paratype III, Museu Nacional, Rio de Janeiro, no. 3117.

Discussion: This species is similar to *Epitonium fractum* DALL, 1927 but differs in having fewer costae on the body whorl, the costae never form spines or hooks at the shoulder angle, and also the whorls are less convex in outline. The new form is trawled together with *E. georgettina* (KIENER, 1839), from which it is easily separated by its smaller size and lower costae. A badly broken shell measured the maximum size of 25.7 mm in length, 9.1 mm in width.

This new species is dedicated to Dr. Maury Pinto de Oliveira, Brazilian malacologist.



Figure 5: *Epitonium mauryi*, holotype, Stanford Univ. Paleo. Type Coll. no. 9738. $\times 2.7$.
Recent, Rio de Janeiro.

ACKNOWLEDGMENTS

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Provisional Classification of the Genus *Notocypraea* SCHILDER, 1927 (Cypraeidae)

BY

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THERE WAS ALWAYS a great confusion concerning the classification of the so-called species and varieties which belong to the genus *Notocypraea* SCHILDER, 1927, restricted to the coasts of southern Australia and Tasmania. Even the most modern "reviews" by GRIFFITHS (1961, 1962) are not satisfying, as he describes ten "species" in alphabetical order without indicating the essential characters which distinguish each from the other, so that identification by the aid of the photographs becomes difficult.

NAMES

The names established for genera, species, subspecies and "varieties" (nomenclatorially of subspecific rank) may be arranged chronologically as follows (|| designates pre-occupied names not valid on account of prior homonymy):

(nameless species, pl. 13, fig. QQ) GUALTIERI, 1742
(=*angustata* GMELIN)

Cypraea angustata GMELIN, 1791

Cypraea || *maculata* PERRY, 1811